REMARKS

Claims 14, 15, 33-42, 45, 46, 48-50, 56, 60-64, 65, and 66 are pending in the present application.

Claims 56 and 65 have been amended.

No new matter is believed to have been added.

Rejection Under 35 USC 103 Over Vogel in view of Jellinek

The Office Action rejects the claims under 35 USC 103 over Vogel (US 5,532,023) in view of Jellinek (US 4,631,226). The Examiner states that term "about" provides latitude for the range claimed and thus "about 9" includes values lower than 9 and "about 10.5" includes values higher than 10.5. In response, Applicant amends Claim 46 to claim, in the relevant part, a pH from 8 to 10.5 without the use of the term "about." Applicant also amends Claim 65 to claim a pH from 9 to 10.5, also omitting the term "about." Thus, neutral pH 7 is not within the scope of the claims. Applicant points out the pH scale is logarithmic and as a result, each whole pH value above 7 is ten times more basic than the next higher value. In other words, pH 8 is ten times more basic that pH 7.

The Office Action points out that Vogel fails to specifically teach a pH value of the compositions therein. However, the Office Action states that composition of example H on column 16 contains amino silicones and amine functional copolymer. Such a composition, states the Office Action, will inherently be basic. Applicant respectfully disagrees.

The components of example H on column 16 of Vogel are likely ACIDIC - not basic. Example H details a composition that contains: Sandoperm ME® (aminoethylaminopropyl dimethyl siloxane); Copolymer 937® (Poly (vinylpyffolidone/dimethylaminoethyl methacrylate)); and Neodol 23-6.5® (C12-C13 alkylpolyethoxylate); and perfume, preservative and DI water. Turning to Sandoperm ME®, a review of the Clariant web page did not yield a Sandoperm "ME" product per se, but did provide a Sandoperm® "MEJ liq" or "MEW liq" product. Its Applicant's assumption that Vogel intended either one of these commercial products when stating "ME." See attached **Exhibit 1** for currently marketed Sandoperm® products.

Sandoperm MEJ liq® provides a pH of 4.0. See **Exhibit 2**, page 2, line 6. Sandoperm MEW liq also provides a pH of 4.0. See **Exhibit 3**, page 2, line 6. Turning to Copolymer 937®, the manufacturer reports a pH from 5-7 for the compound. See **Exhibit 4**, about line 19. Lastly, Neodol 23-6.5® is reported to have a pH of 6.8. See **Exhibit 5**, page 4, Section 9, line 4. Thus, all the relevant ingredients of example H are at or below pH 7. This makes the composition of Vogel likely acidic – not basic.

Rejection Under 35 USC 103 Over Jellinek in view of Vogel

The Office Action rejects the claims under 35 USC 103 over Jellinek in view of Vogel. Applicant traverses this rejection. Applicant asserts that the Office Action has not provided any motivation to combine these references. Rather, Applicant submits the references teach away from being combined. Although example 5, part G of Jellinek has a basic pH of 9.0, the composition of Vogel (i.e., example H on column 16) is likely one that is acidic. Applicant submits thatn there is no motivation to combine the composition of Jellinek, which teaches a composition of pH 9.0, and a composition of Vogel which is likely acidic (i.e., a pH less than 7).

Rejection Under 35 USC 103(a) over Vogel in view of Jellinek or Jellinek in view of Vogel., and further in view of Davis.

The Office Action rejects Claim 48 under 35 USC 103(a) over Vogel in view of Jellinek or Jellinek in view of Vogel, and further in view of Davis. Applicant traverses this rejection for the reasons outlined above.

CONCLUSION

Early and favorable action in the case is respectfully requested.

Respectfully submitted,
THE PROCTER & GAMBLE COMPANY

By _____
David V. Upite
Registration No. 47,147
(513) 627-8150

September 6, 2005
Customer No. 27752

Exhibit 1

Textile Chemicals - Product Index

Previous Next Textile Chemicals home-page

▼Sandoperm

- Sandoperm ACN liq – Finishing
- Sandoperm MEJ liq – Finishing
- Sandoperm MEW liq – Finishing
- Sandoperm RPU liq – Finishing
- Sandoperm SE1 oil – Finishing

Previous Next

Exhibit 2

Clariant

Technical Information

Sandoperm MEJ liq

Sandoperm* MEJ Liquid

Aminofunctional polysiloxane in the form of a microemulsion for permanent finishing effects on all types of fibre

- imparts an extremely soft, flowing handle to the goods
- is suitable for pad and exhaust application
- is stable even to high shearing forces and is therefore specially suitable for application on jets and package machines
- is also suitable for finishing articles of open end yarns
- improves, as an addition to resin finishing liquors, the technological properties of the goods (crease behaviour, tear and abrasion resistance and wash and wear effects)
- improves sewability of the finished goods
- produces wash and dry cleaning-resistant finishing effects
- increases the elasticity and stretch recovery of knit goods.

1 Properties

Appearance		yellowish, transparent liquid
Chemical character		aminomodified polysiloxane
Ionic character		cationic
Density at 20°C		ca. 1
pH	as is	4.0 ± 0.5
Dilutability		dilutable with cold water in any proportion
Storage stability		12 months
Frost stability		stable to frost
Heat stability		prolonged storage over 50°C should be avoided
Compatibility with		
• nonionic products		good
• anionic products		not compatible
• cationic products		good
• amphoteric products		good
• crosslinking agents		good
• fluorescent brighteners		not compatible with anionic brighteneres
Influence on white goods		pretrials are recommended; loss of whiteness must be expected; not compatible with anionic fluorescent brighteners
Influence on dyed goods		depending on the dyeing slight shifts in shade are possible
Influence on thermomigration		pretrials are recommended
Formaldehyde on finished goods		free from formaldehyde
Ecotoxicological data		see Safety Data Sheet.

2 Scope of application

Sandoperm MEJ Liquid is applicable by the padding and exhaust methods. Liquor stability compared to conventional polysiloxanes has been further improved so that the product is applicable even in jet machines with maximum demands as to shear stability.

Sandoperm MEJ Liquid should be applied in the weakly acid region. Application in the alkaline region should be avoided.
When applying silicone products care should be taken to ensure that the goods are adequately rinsed after pretreatment or dyeing in order to remove all chemical residues. It is essential to rinse out special polymer-based detergents well as they can cause precipitations and silicone spots on the goods.

Finishes with **Sandoperm MEJ Liquid** do not require any special drying conditions.

3 Mode of action

Due to the extremely small particle size of the microemulsion and the resulting homogeneous penetration of the fibre bundle, treatments with **Sandoperm MEJ Liquid** lead to specific handle effects which can be characterized as "inner softness".

Sandoperm MEJ Liquid was specially developed as an extremely shear-stable product for jet application and therefore offers the opportunity of wash permanent finishing of knit goods in tubular form with an amino modified polysiloxane.

Combination with **Sandoperm PU Liquid** together with a mechanical treatment such as buffing or emerizing produces extremely interesting fashionable finishing effects.

4 Scope of application

Sandoperm MEJ Liquid is suitable for

- all articles requiring a very soft handle
- woven and knit goods of all types of fibres, especially blouse, shirting and garment fabrics.

5 Sample recipes

5.1 Padding process (natural and synthetic fibres)

5 - 30 g/l **Sandoperm MEJ Liquid**
1 - 3 g/l **Sandozin® NRW Liquid high conc.**
pH 4-5 with acetic acid
- pad at 65-85% pickup
- dry at 130°C.

5.2 Exhaust process on cellulosic fibres

0.5 - 3 % **Sandoperm MEJ Liquid**
pH 4-5 with acetic acid
liquor ratio 10:1-30:1
- treat for 20-30 min at 40-50°C
- drain, do not rinse, hydroextract
- dry under the usual conditions

or

0.5 - 1.5 % **Sandoperm MEJ Liquid**
0.5 - 1.5 % **Sandosoft® OE Liquid**
liquor ratio 10:1-30:1
- treat for 20-30 min at 40-50°C
- drain, do not rinse, hydroextract
- dry under the usual conditions.

5.3 Exhaust process on wool and synthetic fibres

0.5 - 3 % **Sandoperm MEJ Liquid**
pH 5-6 with acetic acid
liquor ratio 10:1-30:1
- treat for 20-30 min at 40-50°C
- drain, do not rinse, hydroextract
- dry under the usual conditions.

6 Stripping

As a rule the goods can simply be overdyed without stripping the finish. If the product is to be removed good stripping is achieved in the following manner:

On winch or jet

10 g/l **Auxiliaire 8824 Liquid**
2 - 4 g/l caustic soda 50%
0.2 - 0.5 g/l **Antimussol® SF Liquid or**
Antimussol HTS Liquid
liquor ratio 10:1-20:1
- treat for 60 min at 80-95°C
- rinse hot to cold
- acidify with
2 - 5 ml/l acetic acid 60% **or**
0.5 - 1 g/l citric acid

Acidification with non-volatile acids such as citric acid is advisable if the goods are to be finished with alkali-sensitive finishing liquors.
In a combination finish with crosslinking resins these must be removed by acid hydrolysis before overdyeing can be carried out. In such cases the above treatment is followed after rinsing by:

4 - 10 ml/l hydrochloric acid conc.
2 g/l **Sandoclean* PC Liquid**
liquor ratio 10:1-20:1
- treat for 20 min at 60-70°C
- rinse hot to cold.

Exhibit 3

SY VI.011

Clariant

Technical Information

Sandoperm MEW liq

Sandoperm* MEW liq

Microemulsion for permanent finishing effects on all types of fibre

- imparts a soft, slightly bulky handle to the goods
- produces wash and dry cleaning-resistant finishing effects
- is particularly suitable for white goods as it does not impair the effect of fluorescent brighteners
- improves sewability of the finished goods
- is also suitable for finishing articles of open end yarns
- improves, as an addition to resin finishing liquors, the technological properties of the goods (crease behaviour, tear and abrasion resistance and wash and wear effects)
- is applied by the padding method.

1 Properties

Appearance		colourless liquid
Chemical character		modified polysiloxane
Ionic character		nonionic
Density at 20°C		ca. 1
pH	as is	4.0 ± 0.5
Dilutability		dilutable with cold water in any proportion
Storage stability		12 months
Frost stability		not stable to frost
Heat stability		prolonged storage over 50°C should be avoided
Compatibility with		
• nonionic products		good
• anionic products		good
• cationic products		good
• amphoteric products		good
• crosslinking agents		good
• fluorescent brighteners		good
Influence on white goods		suitable
Influence on thermomigration		pretrials are recommended
Formaldehyde on finished goods		free from formaldehyde
Ecotoxicological data		see Safety Data Sheet.

2 Scope of application

Sandoperm MEW Liquid is only applied by the padding method. For application on machines with extremely high liquor turbulence such as jets or circulation machines we recommend **Sandoperm MEJ Liquid**, although this product is not combinable with fluorescent brighteners.

Sandoperm MEW Liquid should be applied in the weakly acid region. Application in the alkaline region should be avoided.
When applying silicone products care should be taken to ensure that the goods are adequately rinsed after pretreatment or dyeing in order to remove all chemical residues. It is essential to rinse out special polymer-based detergents well as they can cause precipitations and silicone spots on the goods.

3 Mode of action

Due to the extremely small particle size of the microemulsion and the resulting homogeneous penetration of the fibre bundle, treatments with **Sandoperm MEW Liquid** lead to specific handle effects which can be characterized as "inner softness". Surface modifications, such as "peach skin" effects produced by emerizing, retain their typical handle character. Due to its modified chemical structure this product is specially suitable for all types of white goods.

4 Scope of application

Sandoperm MEW Liquid is suitable for

- all articles requiring a very soft handle
- specially for white goods as it does not react with fluorescent brighteners
- woven and knit goods of all types of fibres, especially blouse, shirting and garment fabrics, as well as sportswear and bedlinen
- articles with fashionable emerizing effects in combination with **Sandoperm PU Liquid.**

5 Sample recipes

5.1 Padding process (all types of fibre)

5 - 30 g/l **Sandoperm MEW Liquid**
0.5 - 1 g/l **Sandozin® NRW Liquid high conc.**
pH 5-6 with acetic acid
- pad at 65-85% pickup
- dry at 130°C.

5.2 White goods of Co, PES/Co, Co/Lycra®

30 - 40 g/l **Arkofix® NDF Liquid conc.**
10 g/l **Catalyst NKS Liquid**
4 - 6 g/l **Leucophor® BFB Liquid**
30 - 40 g/l **Sandoperm MEW Liquid**
0.5 - 1 g/l **Sandozin® NRW Liquid high conc.**
- pad at 70-80% pickup
- dry at 130°C
- cure for 4 min at 150°C **or**
- shock cure for 30-20 s at 170-180°C (temperature of the goods).

5.3 Comfort handle (for all types of fibre except PES), wash permanent

10 - 30 g/l **Sandoperm MEW Liquid**
20 - 40 g/l **Sandoperm PU Liquid**
1 - 2 g/l **Catalyst PU Liquid**
0.5 ml/l acetic acid 60%
- pad at 60-80% pickup
- dry at 130°C
- cure for 4 min at 150°C **or**
- shock cure for 30-20 s at 170-180°C (temperature of the goods).

6 Stripping

As a rule the goods can simply be overdyed without stripping the finish. If the product is to be removed good stripping is achieved in the following manner:

On winch or jet

10 g/l **Auxiliaire 8824 Liquid**
2 - 4 g/l caustic soda 50%
0.2 - 0.5 g/l **Antimussol® SF Liquid or**
Antimussol HTS Liquid
liquor ratio 10:1-20:1
- treat for 60 min at 80-95°C
- rinse hot to cold
- acidify with
2 - 5 ml/l acetic acid 60% **or**
0.5 - 1 g/l citric acid

Acidification with non-volatile acids such as citric acid is advisable if the goods are to be finished with alkali-sensitive finishing liquors.
In a combination finish with crosslinking resins these must be removed by acid hydrolysis before overdyeing can be carried out. In such cases the above treatment is followed after rinsing by:

4 - 10 ml/l hydrochloric acid conc.
2 g/l **Sandoclean* PC Liquid**
liquor ratio 10:1-20:1
- treat for 20 min at 60-70°C
- rinse hot to cold.

Exhibit 4

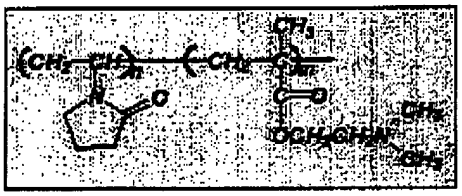
Product Features and Typical Properties

Key Features

- Compatible with carbomer
- Provide cushion gel feel during hair application
- Deliver smooth feel and easy comb through
- Provides body to mousse foam
- Form clear, smooth-feeling, non-tacky films
- Ideal for styling products such as mousses and gels
- Two levels of hold and styling with improved shine over PVP
- Substantive pseudo-cationic for improved compatibility with anionic thickeners

Structure

VP/Dimethylaminoethylmethacrylate Copolymer



(CAS#: 30581-59-0)
20% solids in water

Differentiation

Copolymer 845	Copolymer 937
• 20% solids in water pH 6-8 (as is)	• 20% solids in water pH 5-7 (as is)
• Clear, viscous liquid	• Hazy, highly viscous liquid
• 20,000-50,000 cps	• 20,000-70,000 cps
• Higher level of VP	• Higher level of DMEAMA*
• More compatible with anionic thickeners	• More pseudo-cationic
• Clear gels in carbomer	• Slightly better humidity resistance
• Tg 172°C	• Tg 104°C

Gel Properties

Carbopol 980* % Active	Copolymer 937 % Active	Copolymer 845 % Active	Ratio Anionic: Cationic	Viscosity (cps) Brookfield DVII, T-C, 5 rpm	pH	Appearance
0.5%	0.4%	0	1: 0.8	41,000 cps	7.6	Turbid, firm gel (124 NTU)
0.8%	0	0.4%	1: 0.5	92,000 cps	6.4	Clear Gel (18 NTU)
0.8%	0	3.0%	1: 3.75	126,000 cps	7.31	Slightly Hazy Gel (35 NTU)
0.8%	0	1.0% (+1% PVP K-90)	1: 1.25	92,000 cps	6.4	Slightly Hazy Gel (33 NTU)

* Neutralized with AMP-95

Exhibit 5

Exhibit 2

Shell Chemicals

NEODOL 23-6.5
Version 1.
Effective Date 08.08.2005
according to EC directive 2001/58/EC

Material Safety Data Sheet

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Material Name	:	**NEODOL 23-6.5**
Uses	:	Use in detergent manufacture.
Product Code	:	V2450
Manufacturer/Supplier	:	**Shell Chemicals Europe B.V.** PO Box 8610 3009 AP Rotterdam Netherlands
Local Contact	:	Shell Chemicals UK
Telephone	:	+31 (0)10231 7425
Fax	:	+31 (0)10231 7115
Emergency Telephone Number	:	+44 (0)208 7628322
Other Information	:	NEODOL is a registered trademark used by companies of the Royal Dutch/Shell group of Companies.

2. COMPOSITION/INFORMATION ON INGREDIENTS

Material Formal Name	:	Primary alcohol ethoxylate based on NEODOL 23E
Synonyms	:	NEODOL 23-6.5 Alcohol Ethoxylate
CAS No.	:	66455-14-9

3. HAZARDS IDENTIFICATION

Health Hazards	:	May cause moderate irritation to skin. Repeated exposure may cause skin dryness or cracking. Risk of serious damage to eyes. Harmful if swallowed.
Signs and Symptoms	:	Eye irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blurred vision. Defatting dermatitis signs and symptoms may include a burning sensation and/or a dried/cracked appearance. Skin irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blisters.
Safety Hazards	:	No specific hazards.
Environmental Hazards	:	Very toxic to aquatic organisms.

4. FIRST AID MEASURES

General Information	:	In general no treatment is necessary, however, obtain medical advice.
Inhalation	:	Remove to fresh air.
Skin Contact	:	Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available.

Eye Contact	:	Immediately flush eyes with large amounts of water for at least 15 minutes while holding eyelids open. Transport to the nearest medical facility for additional treatment.
Ingestion	:	If swallowed, do not induce vomiting: transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

5. FIRE FIGHTING MEASURES

Clear fire area of all non-emergency personnel.

Specific Hazards	:	Carbon monoxide may be evolved if incomplete combustion occurs.
Extinguishing Media	:	Alcohol-resistant foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable Extinguishing Media	:	Do not use water in a jet.
Protective Equipment for Firefighters	:	Wear full protective clothing and self-contained breathing apparatus.
Additional Advice	:	Keep adjacent containers cool by spraying with water.

6. ACCIDENTAL RELEASE MEASURES

Observe all relevant local and international regulations.

Protective measures	:	Avoid contact with spilled or released material. Immediately remove all contaminated clothing. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. For guidance on disposal of spilled material see Chapter 13 of this Material Safety Data Sheet. Use the following as appropriate: Notify authorities if any exposure to the general public or the environment occurs or is likely to occur. Local authorities should be advised if significant spillages cannot be contained. Keep animals off contaminated vegetation. Stay upwind and keep out of low areas. Be ready for fire or possible exposure. Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers. Use appropriate containment to avoid environmental contamination. Ventilate contaminated area thoroughly.
Clean Up Methods	:	For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely. For small liquid spills (< 1 drum), transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.

7. HANDLING AND STORAGE

General Precautions	:	Avoid breathing of or contact with material. Only use in well ventilated areas. Wash thoroughly after handling. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.
Handling	:	Avoid contact with skin, eyes, and clothing. Do not empty into drains.
Storage	:	Bulk storage tanks should be diked (bunded). Keep away from flammables, oxidizing agents, and corrosives. Vapours from tanks should not be released to atmosphere. Breathing losses during storage should be controlled by a suitable vapour treatment system. Nitrogen blanket recommended for large tanks (capacity 100 m3 or higher). Storage Temperature : 50°C maximum. Insulation (lagging) will minimize heat loss in areas of low ambient temperature. Tanks should be fitted with heating coils in areas where ambient conditions can result in handling temperatures below the freezing point/pour point of the product. Tanks should be fitted with heating coils.
Product Transfer	:	Keep containers closed when not in use. Do not use compressed air for filling, discharging or handling.
Recommended Materials	:	Stainless steel. Epoxy resins. Polyester.
Unsuitable Materials	:	Aluminium. Copper. Copper alloys.
Container Advice	:	Containers, even those that have been emptied, can contain explosive vapours. Do not cut, drill, grind, weld or perform similar operations on or near containers.
Additional Information	:	Ensure that all local regulations regarding handling and storage facilities are followed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

None established.

Additional Information	:	Wash hands before eating, drinking, smoking and using the toilet. Launder contaminated clothing before re-use.
Exposure Controls	:	The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Adequate ventilation to control airborne concentrations. Local exhaust ventilation is recommended. Eye washes and showers for emergency use.
Personal Protective Equipment	:	Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.
Respiratory Protection	:	Select a filter suitable for combined particulate/organic gases and vapours [boiling point >65 °C (149 °F)] meeting EN141. If engineering controls do not maintain airborne concentrations

		to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Where air-filtering respirators are unsuitable (e.g., airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing apparatus.
Hand Protection	:	Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection: Incidental contact/Splash protection: Nitrile rubber gloves Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced.
Eye Protection	:	Chemical splash goggles (gas-tight monogoggles) and face shield. Approved to EU Standard EN166.
Protective Clothing	:	Chemical resistant gloves/gauntlets, boots, and apron (where risk of splashing).
Monitoring Methods	:	Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate. Examples of sources of recommended air monitoring methods are given below or contact supplier. Further national methods may be available. National Institute of Occupational Safety and Health (NIOSH), USA: Manual of analytical Methods http://www.cdc.gov/niosh/nmam/nmammenu.html Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods http://www.osha-slc.gov/dts/sltc/methods/toc.html Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances http://www.hsl.gov.uk/search.htm Berufsgenossenschaftliches Institut für Arbeitssicherheit (BIA), Germany http://www.hvbg.de/d/bia/pub/grl/grle.htm L'Institut National de Recherche et de Securité, (INRS), France http://www.inrs.fr/indexnosdoss.html
Environmental Exposure Controls	:	Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Colourless. Clear to slightly hazy liquid.
Odour	:	Mild.
pH	:	6.8 0.5% mass aqueous solution.
Cloud point	:	41 °C / 106 °F (1% aqueous solution)
Pour point		18 °C / 64 °F
Flash point	:	172 °C / 342 °F (IP 34)
Vapour pressure	:	0.01 Pa at 20 °C / 68 °F

Density	:	969 kg/m3 at 40 °C / 104 °F (IP 160)
Water solubility	:	Miscible., High viscosity gels may be formed at mid range concentrations.
n-octanol/water partition coefficient (log Pow)	:	3
Kinematic viscosity	:	26 mm2/s at 40 °C / 104 °F

10. STABILITY AND REACTIVITY

Stability	:	Oxidises on contact with air. Stable up to 50 degrees C
Conditions to Avoid	:	Temperatures above 50°C
Materials to Avoid	:	Copper. Copper alloys. Aluminium. Strong oxidising agents.
Hazardous Decomposition Products	:	None expected under normal use conditions.

11. TOXICOLOGICAL INFORMATION

Basis for Assessment	:	Information given is based on product testing, and/or similar products, and/or components.
Acute Oral Toxicity	:	Moderately toxic: LD50 >200 - 2000 mg/kg , Rat
Acute Dermal Toxicity	:	Low toxicity: LD50 >2000 mg/kg , Rat
Acute Inhalation Toxicity	:	Low toxicity: LC50 >5 mg/l
Skin Irritation	:	May cause moderate skin irritation (but insufficient to classify).
Eye Irritation	:	Risk of serious damage to eyes.
Respiratory Irritation	:	Inhalation of vapours or mists may cause irritation to the respiratory system.
Sensitisation	:	Not a skin sensitiser.
Repeated Dose Toxicity	:	Low systemic toxicity on repeated exposure.
Mutagenicity	:	No evidence of mutagenic activity.
Carcinogenicity	:	Not carcinogenic in animal studies.
Reproductive and Developmental Toxicity	:	Does not impair fertility. Not a developmental toxicant.

12. ECOLOGICAL INFORMATION

Acute Toxicity		
Fish	:	Expected to be toxic: 1 < LC/EC/IC50 <= 10 mg/l
Aquatic Invertebrates	:	Very toxic: LC/EC/IC50 <= 1 mg/l
Algae	:	Expected to be toxic: 1 < LC/EC/IC50 <= 10 mg/l
Microorganisms	:	Expected to have low toxicity: LC/EC/IC50 > 100 mg/l
Mobility	:	If product enters soil, it will be highly mobile and may contaminate groundwater. Dissolves in water.
Persistence/degradability	:	Readily biodegradable.
Bioaccumulation	:	Bioaccumulation is unlikely to occur due to metabolism and excretion.
Other Adverse Effects	:	This surfactant complies with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a

detergent manufacturer.

13. DISPOSAL CONSIDERATIONS

Material Disposal	:	Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations.
Container Disposal	:	Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Residues may cause an explosion hazard. Do not puncture, cut or weld uncleaned drums. Send to drum recoverer or metal reclaimer.
Local Legislation	:	Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.

14. TRANSPORT INFORMATION

ADR

Class	:	9
Packing group	:	III
Classification code	:	M6
Hazard indentification no.	:	90
UN No.	:	3082
Danger label (primary risk)	:	9
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Alcohol C12-C16 Poly (1-6) Ethoxylate)

RID

Class	:	9
Packing group	:	III
Classification code	:	M6
Hazard indentification no.	:	90
UN No.	:	3082
Danger label (primary risk)	:	9
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Alcohol C12-C16 Poly (1-6) Ethoxylate)

IMDG

Identification number	UN 3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Technical name	(Alcohol C12-C16 Poly (1-6) Ethoxylate)
Class / Division	9
Packing group	III
Marine pollutant:	Yes (Alcohol C12-C16 Poly (1-6) Ethoxylate)

IATA (Country variations may apply)

This material is not classified as dangerous under IATA regulations.

15. REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

EC Label Name	:	ALCOHOL ETHOXYLATE
EC Classification	:	Harmful. Dangerous for the environment.
EC Symbols	:	Xn Harmful. N Dangerous for the environment.
EC Risk Phrases	:	R22 Harmful if swallowed. R41 Risk of serious damage to eyes. R50 Very toxic to aquatic organisms.
EC Safety Phrases	:	S25 Avoid contact with eyes. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S37/39 Wear suitable gloves and eye/face protection. S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.
AICS	:	Listed.
DSL	:	Listed.
INV (CN)	:	Listed.
ENCS (JP)	:	Listed. (7)-97
TSCA	:	Listed.
KECI (KR)	:	Listed. KE-13386
PICCS (PH)	:	Listed.

16. OTHER INFORMATION

R-phrase(s)

R22	Harmful if swallowed.
R41	Risk of serious damage to eyes.
R50	Very toxic to aquatic organisms.

MSDS Version Number	:	1.
MSDS Effective Date	:	08.08.2005
MSDS Revisions	:	A vertical bar (|) in the left margin indicates an amendment from the previous version.
MSDS Regulation	:	The content and format of this safety data sheet is in accordance with Commission Directive 2001/58/EC of 27 July 2001, amending for the second time Commission Directive 91/155/EEC.
Uses and Restrictions	:	Use in detergent manufacture.
MSDS Distribution	:	The information in this document should be made available to all who may handle the product
Disclaimer	:	This information is based on our current knowledge and is intended to describe the product for the purposes of health,

safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.